



TITLE: HIGH INTENSITY HID LIGHTING FIXTURE WITH QUICK-DISCONNECT LIGHT SOURCE MOUNT

BACKGROUND OF THE INVENTION

5 *Field of the Invention*

The present invention relates to high intensity lighting fixtures, and in particular, to unjacketed, double-ended high intensity discharge (HID) lamps and fixtures for wide area lighting of relatively distant targets, such as in
10 sports lighting.

Problems in the Art

High intensity discharge lamps, such as used in sports lighting, require high operating electrical power to operate lamps that usually are on the order of 1000 watts or greater. Also, HID lamps such as metal halide or mercury
15 HID lamps generate ultraviolet (UV) radiation. Both of these characteristics of such HID lamps create safety issues, particularly for persons that install, maintain or repair such fixtures.

Some HID fixtures address these issues by utilizing screw-in lamps so that there are no directly exposed current-carrying parts. These lamps also
20 usually have glass envelopes surrounding the arc tube. The glass absorbs a sufficient amount of UV radiation so that it does not pose a serious risk to workers, even if in close proximity to the lamps when operating.

A particular type of HID lamp does not have any glass envelope surrounding the arc tube. It also has opposite ends usually with short leads
25 with exposed ends that are connected to exposed electrical connection posts in the fixture. Although such fixtures usually have glass lens over the front of the reflector for the fixture, which blocks UV radiation, when the lens is opened, that UV protection is removed. Also, the exposed current carrying surfaces pose risk.